IS 13625 : 2013

(Reaffirmed 2019)

भारतीय मानक

एक्रीलिक और सिन्टैन वाले पुनः चर्मशोधन सिन्टैन — विशिष्टि

(पहला पुनरीक्षण)

Indian Standard

RETANNING SYNTANS INCLUDING ACRYLIC AND RELATED SYNTANS — SPECIFICATION

(First Revision)

ICS 59.140.10

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

August 2013 **Price Group 3**

Leather, Tanning Materials and Allied Products Sectional Committee, CHD 17

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Leather, Tanning Materials and Allied Products Sectional Committee had been approved by the Chemical Division Council.

The retanning syntans are largely used for retanning of chrome and semi-chrome leathers. These syntans fill up loose portions like the belly regions and improve the grain tightness and buffing properties of chrome and semi-chrome leathers. Since these syntans are meant mainly for retanning, the tannin content is of no particular importance and hence concentration alone is taken into consideration. This type of syntans, particularly the acrylic and related syntans should not have any film forming property.

This standard was originally published in 1992. In this revision, the requirement on pentachloro phenol (PCP) has been introduced keeping in view of the demand for eco-friendly inputs from the leather industry.

The composition of the Committee responsible for the formulation of this standard is given in Annex B.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

RETANNING SYNTANS INCLUDING ACRYLIC AND RELATED SYNTANS — SPECIFICATION

(First Revision)

1 SCOPE

This standard prescribes requirements and methods of sampling and test for retanning syntans including acrylic and related syntans for retanning chrome and semi-chrome leathers.

2 REFERENCES

The standards listed below are necessary adjuncts to this standard.

IS No.	*Title*
1640 : 2007	Glossary of terms relating to hides, skins and leather (*first revision*)
4905 : 1968	Methods for random sampling
13271 : 2009	Syntans — Methods of test (*first revision*)

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 1640 shall apply.

4 REQUIREMENT

4.1 Description

The material shall be in the form of powder or liquid.

4.2 The material shall also comply with the requirements given in Table 1, when tested according to the methods given in col 4 of the Table 1.

5 PACKING AND MARKING

5.1 Packing

Unless otherwise agreed to between the purchaser

Table 1 Requirements for Retanning Syntans Including Acrylic and Related Syntans
(*Clauses* 4.2 *and* A-4.2)

Sl No. (1)	Characteristics (2)	Requirements (3)	Method of Test, Ref to Cl of IS 13271 (4)
i)	Total solid residue, percent by mass, *Min*:		8
	a) Powder	95.0	—
	b) Liquid	30.0	—
ii)	Moisture, percent by mass, *Max*:		
	a) Powder	5.0	7
	b) Liquid	70.0	—
iii)	Iron (as Fe_2O_3), percent by mass, *Max*	0.03	15
iv)	PCP content[1], mg/kg, *Max*	5	17

NOTE — The following corrections shall be incorporated while calculating the total solid content for liquid syntans:

$$\text{Total solid, percent by mass} = \frac{M_2}{M_1} \times \frac{1000}{50} \times 100$$

where

M_2 = corrected mass of the material left after drying, in g;
= $(W - B) + C$
M_1 = mass of the material taken for the test, in g;
W = mass of the material left after drying, in g;
B = weight of sodium = $V \times N \times 0.023$, in g;
V = volume of (N) sodium hydroxide solution added; and
C = weight of hydrogen = $V \times N \times 0401$, in g.

[1] Calculated on moisture free basis.

and the supplier, the material shall be packed in moisture proof containers such as gunny bags suitably lined with moisture proof papers or polyethylene bags.

5.2 Marking

The containers shall be securely closed and bear legibly and indelibly the following particulars:

a) Name of the material;
b) Indication of the source of manufacture;
c) Gross and net mass;
d) Date of manufacture; and
e) Batch number.

5.2.1 *BIS Certification Marking*

The containers may also be marked with the Standard Mark.

5.2.1.1 The use of the Standard Mark is governed by the provision of the *Bureau of Indian Standard Act,* 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

6 SAMPLING AND CRITERIA FOR CONFORMITY

The method for drawing representative samples for test and the criteria for conformity shall be as given in Annex A.

ANNEX A

(*Clause* 6)

METHOD OF SAMPLING FOR REPLACEMENT SYNTAN

A-1 LOT

All the containers of the same capacity containing retanning syntans manufactured from the same material under similar conditions of production shall constitute a lot.

A-1.1 Sample shall be tested from each lot separately for ascertaining conformity of the material to the requirements of this standard. The number of containers to be selected from each lot (n) shall depend on the size of the lot (N) and shall be as given in Table 2.

Table 2 Number of Containers to be Selected for Sampling

Sl No.	Lot Size	Number of Containers to be Selected	Constant Factor	$\frac{R}{(U-L)}$
	N	n	‘k’	
(1)	(2)	(3)	(4)	(5)
i)	Up to 100	3	0.6	0.8
ii)	101 to 300	4	0.5	0.8
iii)	301 and above	5	0.5	0.9

A-1.2 These containers shall be selected at random from the lot. For this purpose, reference may be made to IS 4905. If such a random number table is not available, the following procedure may be adopted:

> Starting from any container count 1, 2, 3,... etc, up to r and so on in a systematic manner and withdraw the rth container, r being the integral part of N/n; where N is the total number of containers in the lot, and n the number of containers to be selected according to Table 2. Every rth container thus counted shall be selected till the required sample size is obtained.

A-2 PREPARATION OF TEST SAMPLES

A-2.1 Shake/mix well each of the containers selected in **A-1.1**. From each of the containers a representative portion of the material sufficient to carry out tests as given in **A-3** shall be taken out.

A-2.2 Out of the portions collected from each of the selected containers, an equal quantity of the material shall be taken out and mixed thoroughly to form a composite sample. The composite sample so formed shall be divided into three equal parts, one for the purchaser, another for the supplier, and the third for the referee.

A-2.3 The remaining portion of the sample from each container shall be divided into three equal parts and each such separate part shall constitute an individual sample. One set of individual samples (representing the n containers selected) shall be marked for the purchaser, another for the supplier and the third for the referee.

A-2.4 All the individual and composite samples shall be immediately transferred to separate glass bottles and shall be labelled with full identification particulars of the samples.

A-2.5 The referee sample shall bear the seal of both the purchaser and the supplier. These shall be kept at a place agreed to between the purchaser and the supplier and shall be used in case of dispute between the two.

A-3 NUMBER OF TESTS

A-3.1 Test for total solid residue shall be performed on individual samples.

A-3.2 Tests for the remaining characteristics shall be conducted on composite samples.

A-4 CRITERIA FOR CONFORMITY

A-4.1 For Individual Sample

A-4.1.1 *For Total Solid Residue*

The lot shall be considered as conforming to this requirement if $(\overline{X} - k\,R) \geq L$ is satisfied; where X is the mean of all the results of the sample drawn, R is the range, L is the lower specification limit for total solid residue and k is constant factor, the value of which is given in Table 2.

A-4.2 For Composite Sample

The lot shall be declared as conforming to the requirements for the remaining characteristics if the test results satisfy the requirements prescribed in Table 1.

A-4.3 The lot shall be deemed as conforming to the requirements of this standard, if **A-4.1** and **A-4.2** are satisfied.

ANNEX B

(*Foreword*)

COMMITTEE COMPOSITION

Leather, Tanning Materials and Allied Products Sectional Committee, CHD 17

Organization	*Representive(s)*
Central Leather Research Institute, Chennai	Director (***Chairman***)
A. V. Thomas Leather & Allied Products Pvt Ltd, Chennai	Shri Habib Hussain Shir K. Manivannan (*Alternate*)
All India Skins & Hide Tanners and Merchants Assciation, Chennai	Shri Mohan M. Sreenivas Shri S. Mohammed Hassan (*Alternate*)
BASF India Ltd, Mumbai	Shri P. R. Chaudhari Dr S. A. Nadgouda (*Alternate*)
Bata India Ltd, Hathidah, Bihar	Dr Sudhir Kumar Das
Central Footwear Training Institute, Agra	Shri S. N. Ganguly Shri S. Chakraborty (*Alternate*)
Central Leather Research Institute, Chennai	Dr C. Muralidharan
Central Pollution Control Board, Delhi	Shri T. Venugopal Shri Ajay Aggarwal (*Alternate*)
College of Leather Technology, Kolkata	Dr Buddhadev Chattopadhyay Prof Swapan Kumar Basu (*Alternate*)
Consumer Federation of India, New Delhi	Representative
Council for Leather Exports, Chennai	Shri M. M. Hashim Dr Zackria Sait (*Alternate*)
Directorate General of Quality Assurance (DGQA), Kanpur	Shri G. C. Kannaujia Shri S. Chakraborty (*Alternate*)
Footwear Design & Development Institute, Noida	Shri B. S. Katiyar Shri Navendu Shekhar (*Alternate*)
Harman Sales Pvt Ltd, Mumbai	Shri H. K. Razdan Shri Jeevan Razdan *Alternate*)
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Indian Leather Products Association, Kolkata	Representative
Indian Leather Technologists Association, Kolkata	Shri Arnab Jha Dr Gautam Mukherjee (*Alternate*)
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Indofil Chemicals Co Ltd, Mumbai	Shri S. K. Jha
International Institute of Saddlery Technology and Export Management, Kanpur	Representative
Italab Private Ltd, Chennai	Shri M. A. Etiappan Shri J. J. Patel (*Alternate*)
Khadi & Village Industries Commission, Mumbai	Shri S. Vijaya Kumar Shri R. Lawrence (*Alternate*)
Kings International Ltd, Kanpur	Shri Taj Alam Shri G. S. Kumaran (*Alternate*)
Leather Chemicals Manufacturers Association, Mumbai	Shri Vaduvur T. Srikanth Shri Sanjeev Mehta (*Alternate*)
Liberty Footwear, Karnal	Shri Adesh Gupta Shri S. S. Lahiri (*Alternate*)
Ministry of Commerce, New Delhi	Representative

Organization	*Representive(s)*
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National Institute of Fashion Technology, New Delhi	Shri E. Sivasakthi
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Sports Authority of India Ltd, New Delhi	Representative
TALTEIA, Chennai	Shri Vadivelu
Tata International Limited, Dewas	Shri O. K. Kaul Shri R. G. Bhirud (*Alternate*)
The Leather Forum Calcutta for Research and Development, Kolkata	Shri Sanjoy Dasgupta Shri Prasanto Bhattacharjee (*Alternate*)
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Scientist 'F' and Head (CHD), BIS

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BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones : 2323 0131, 2323 3375, 2323 9402 *Website*: www.bis.org.in

Regional Offices:		*Telephones*
Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	2323 7617 2323 3841
Eastern	: 1/14 C.I.T. Scheme VII M, V. I. P. Road, Kankurgachi KOLKATA 700054	2337 8499, 2337 8561 2337 8626, 2337 9120
Northern	: SCO 335-336, Sector 34-A, CHANDIGARH 160022	260 3843 260 9285
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